To: Beeler, Cindy[Beeler.Cindy@epa.gov]; Mia, Marcia[Mia.Marcia@epa.gov]; Jason

Huckaby[Jason.Huckaby@erg.com]

Cc: Garwood, Gerri[Garwood.Gerri@epa.gov]

From: Johnson, Steffan

**Sent:** Mon 3/7/2016 3:19:50 PM

Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance Test

Results

Cindy,

That write-up makes sense to me, and is well constructed. Nice job.

I wanted to lay out a couple of follow up points for the edification/understanding of this group.

## Ex. 5 - Deliberative Process

So...belt, suspenders, and hip waders.

Stef

From: Beeler, Cindy

Sent: Monday, March 07, 2016 9:40 AM

**To:** Mia, Marcia < Mia. Marcia@epa.gov>; Jason Huckaby < Jason. Huckaby@erg.com>;

Johnson, Steffan <johnson.steffan@epa.gov>
Cc: Garwood, Gerri <Garwood.Gerri@epa.gov>

**Subject:** RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance Test Results

Yes – thanks to all who weighed in providing the test data and review of language.

## Ex. 5 - Deliberative Process

#### **Cindy Beeler**

US EPA Region 8, Energy Advisor Office of the Regional Administrator

Tel: 303-312-6204 Beeler.Cindy@epa.gov

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From: Mia, Marcia

**Sent:** Monday, March 07, 2016 6:18 AM

**To:** Jason Huckaby <<u>Jason.Huckaby@erg.com</u>>; Beeler, Cindy <<u>Beeler.Cindy@epa.gov</u>>;

Johnson, Steffan <<u>johnson.steffan@epa.gov</u>> **Cc:** Garwood, Gerri <Garwood.Gerri@epa.gov>

Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

**Test Results** 

Thanks Jason!
Marcia B Mia
Office of Compliance/Air Branch
2227A WJCS
U.S. Environmental Protection Agency
202-564-7042
From: Jason Huckaby [mailto:Jason.Huckaby@erg.com]
Sent: Thursday, March 03, 2016 10:28 AM  To: Beeler, Cindy <a href="mailto:Beeler.Cindy@epa.gov">Beeler.Cindy@epa.gov</a> ; Johnson, Steffan <a href="mailto:johnson.steffan@epa.gov">johnson.steffan@epa.gov</a> ; Mia, Marcia <a href="mailto:Mia.Marcia@epa.gov">Mia.Marcia@epa.gov</a> >  Cc: Garwood, Gerri <a href="mailto:Garwood.Gerri@epa.gov">Garwood.Gerri@epa.gov</a> >  Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance Test Results
Hello again,
A revised table with a DRE column is attached. Marcia, we did not update the revision date on this since it is not the "official" version posted on the website.
Thanks, and again, let me know if you have any questions or comments.
Jason

Jason M. Huckaby

Sr. Chemical Engineer

Eastern Research Group

(919) 468-7826

From: Jason Huckaby

**Sent:** Thursday, March 03, 2016 10:06 AM

To: 'Beeler, Cindy' < Beeler. Cindy@epa.gov >; Johnson, Steffan < johnson.steffan@epa.gov >;

Mia, Marcia < Mia. Marcia @epa.gov >

Cc: Garwood, Gerri < Garwood. Gerri@epa.gov >

Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

Test Results

Hello all,

### Ex. 5 - Deliberative Process

Thanks, and let me know if you have any questions. I'll send along the table shortly.

Jason

Jason M. Huckaby

t

Sr. Chemical Engineer

Eastern Research Group

(919) 468-7826

From: Beeler, Cindy [mailto:Beeler.Cindy@epa.gov]

**Sent:** Thursday, March 03, 2016 9:28 AM

To: Johnson, Steffan <johnson.steffan@epa.gov>; Jason Huckaby <Jason.Huckaby@erg.com>;

Mia, Marcia < Mia. Marcia @epa.gov>

Cc: Garwood, Gerri < Garwood. Gerri@epa.gov>

Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

Test Results

Mind like a steel trap! Thanks, Steffan.

#### **Cindy Beeler**

US EPA Region 8, Energy Advisor Office of the Regional Administrator Tel: 303-312-6204

Beeler.Cindy@epa.gov

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From: Johnson, Steffan

**Sent:** Thursday, March 03, 2016 5:40 AM

To: Jason Huckaby Specific Jason Huckaby @erg.com; Beeler, Cindy Specific Jason Huckaby @erg.com; Mia,

Marcia < Mia. Marcia @epa.gov>

Cc: Garwood, Gerri < Garwood. Gerri@epa.gov >

Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

Test Results

### Ex. 5 - Deliberative Process

Perhaps that is helpful... Stef From: Jason Huckaby [mailto:Jason.Huckaby@erg.com] Sent: Wednesday, March 02, 2016 10:12 PM To: Beeler, Cindy <Beeler. Cindy@epa.gov>; Mia, Marcia <Mia.Marcia@epa.gov>; Johnson, Steffan < johnson.steffan@epa.gov> Cc: Garwood, Gerri < Garwood. Gerri@epa.gov> Subject: Re: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance **Test Results** Sorry, I've been out sick today and am just seeing this thread. I will review results and confirm efficiencies in the morning. Regards, Jason Sent on the new Sprint Network ---- Reply message -----From: "Beeler, Cindy" < Beeler. Cindy@epa.gov> To: "Mia, Marcia" < Mia. Marcia@epa.gov >, "Johnson, Steffan" < johnson.steffan@epa.gov > Cc: "Garwood, Gerri" < Garwood. Gerri@epa.gov>, "Jason Huckaby" <Jason.Huckaby@erg.com> Subject: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance Test

Results

Date: Wed, Mar 2, 2016 6:21 PM

n a

## Ex. 5 - Deliberative Process

#### **Cindy Beeler**

US EPA Region 8, Energy Advisor Office of the Regional Administrator

Tel: 303-312-6204 Beeler.Cindy@epa.gov

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From: Beeler, Cindy

Sent: Wednesday, March 02, 2016 4:18 PM

To: Mia, Marcia < Mia. Marcia@epa.gov >; Johnson, Steffan < johnson.steffan@epa.gov > Cc: Garwood, Gerri < Garwood.Gerri@epa.gov >; Jason Huckaby < Jason.Huckaby@erg.com > Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

**Test Results** 

If that is something that you have the resources to do – it'd be very helpful to see a column on that performance testing table that shows the testing results in DRE%.

Thanks a TON, Marcia!

**Cindy Beeler** 

US EPA Region 8, Energy Advisor Office of the Regional Administrator

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From: Mia, Marcia

Sent: Wednesday, March 02, 2016 4:17 PM

To: Beeler, Cindy <<u>Beeler.Cindy@epa.gov</u>>; Johnson, Steffan <<u>johnson.steffan@epa.gov</u>> Cc: Garwood, Gerri <<u>Garwood.Gerri@epa.gov</u>>; Jason Huckaby <<u>Jason.Huckaby@erg.com</u>> Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

Test Results

That works for me. Do you need Jason to do anymore looking?

Marcia B Mia

Office of Compliance/Air Branch

2227A WJCS

U.S. Environmental Protection Agency

202-564-7042

From: Beeler, Cindy

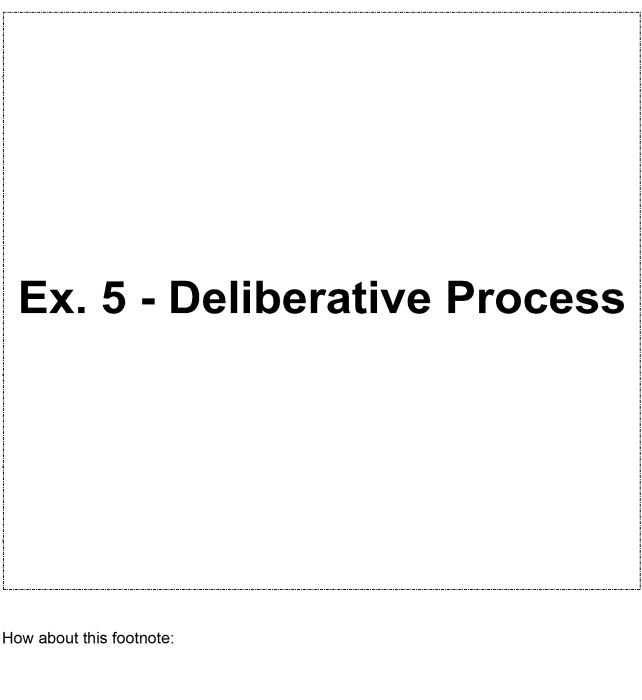
Sent: Wednesday, March 02, 2016 6:06 PM

To: Mia, Marcia < Mia. Marcia@epa.gov >; Johnson, Steffan < johnson.steffan@epa.gov > Cc: Garwood, Gerri < Garwood.Gerri@epa.gov >; Jason Huckaby < Jason.Huckaby@erg.com > Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

Test Results

Thanks for quick response Marcia (esp. at late hour Back East).

I checked several of the Manufacturer websites of EPA-confirmed models and they are



EPA has currently reviewed performance tests submitted for 19 different makes/models of combustor control devices and confirmed they meet the performance requirements in NSPS subpart OOOO and NESHAP subparts HH and HHH. All of these (the majority?) reported destruction efficiencies above 98% as tested. When operated within the design parameters and in accordance with manufacturer recommendations 98% destruction efficiency should be achievable.

**Cindy Beeler** 

US EPA Region 8, Energy Advisor Office of the Regional Administrator

Tel: 303-312-6204 Beeler.Cindy@epa.gov

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From: Mia, Marcia

Sent: Wednesday, March 02, 2016 3:45 PM

To: Beeler, Cindy <<u>Beeler.Cindy@epa.gov</u>>; Johnson, Steffan <<u>johnson.steffan@epa.gov</u>> Cc: Garwood, Gerri <<u>Garwood.Gerri@epa.gov</u>>; Jason Huckaby <<u>Jason.Huckaby@erg.com</u>> Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

**Test Results** 

Importance: High

### Ex. 5 - Deliberative Process

## Ex. 5 - Deliberative Process

Marcia B Mia

Office of Compliance/Air Branch

2227A WJCS

U.S. Environmental Protection Agency

202-564-7042

From: Beeler, Cindy

Sent: Wednesday, March 02, 2016 4:53 PM

To: Mia, Marcia < Mia. Marcia@epa.gov >; Johnson, Steffan < johnson.steffan@epa.gov >

Cc: Garwood, Gerri (Garwood, Gerri@epa.gov)

Subject: FW: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

**Test Results** 

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Marcia & Stef -

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Ex. 5 - Deliberative Process

Background – Due to high ozone recorded over the last few years (recent 8-hour average of 120 ppb) in the Uinta Basin in NE Utah, R8 is drafting a reservation-specific FIP to address emissions from  $\sim 8,000$  existing wells. We go beyond NSPS OOOO because, for example, the majority of those existing sites are small emitters (e.g. < 6 TPY on tanks), and we have  $\sim 1800$  small glycol dehydrators that are not in urban area clusters.

Besides protecting air quality on Indian country we also wanted to help bring a level playing field in the Basin between facilities on Utah state land and on Indian country. Utah rules include a 95% DRE on control devices for tanks, dehyds etc. so that is what we used. OAQPS has pushed back and we are now using language that bridges the "designed for 98% but achieve at least 95%" type language.

**Cindy Beeler** 

US EPA Region 8, Energy Advisor Office of the Regional Administrator

Tel: 303-312-6204 Beeler.Cindy@epa.gov

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From: Garwood, Gerri

Sent: Thursday, February 18, 2016 1:26 PM

To: Smith, Claudia < Smith. Claudia@epa.gov >; Beeler, Cindy < Beeler. Cindy@epa.gov >

Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

**Test Results** 

I think there are 19 that have been cleared. They are generally several hundred pages long. I would suspect that for the most part it would be in the summary pages, although some of the data would need to be caveated as we did have some sampling anomalies. It's probably not a really huge effort, it's just finding the time to do it. Bruce said that ya'll talked earlier and that this issue is maybe resolved?

Gerri

919-541-2406

From: Smith, Claudia

Sent: Thursday, February 18, 2016 11:31 AM

To: Garwood, Gerri; Beeler, Cindy

Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

Thanks,

Claudia

From: Garwood, Gerri

Sent: Wednesday, February 17, 2016 3:04 PM
To: Beeler, Cindy < Beeler. Cindy@epa.gov >
Cc: Smith, Claudia < Smith. Claudia@epa.gov >

Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

Test Results

Well, it actually would be easy, if we had been doing it. The flow is noted because of the rule requirement to be under the maximum flow. But it would be easy to note other data from the reports in a spreadsheet. We just haven't been doing that so now it would take a while for someone to go back through all of the reports and tabulate the data.

Gerri

919-541-2406

From: Beeler, Cindy

Sent: Wednesday, February 17, 2016 4:39 PM
To: Garwood, Gerri < Garwood. Gerri@epa.gov >
Cc: Smith, Claudia < Smith. Claudia@epa.gov >

Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

#### **Cindy Beeler**

US EPA Region 8, Energy Advisor Office of the Regional Administrator Tel: 303-312-6204 Beeler.Cindy@epa.gov

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From: Garwood, Gerri

Sent: Wednesday, February 17, 2016 1:43 PM
To: Beeler, Cindy < Beeler. Cindy@epa.gov >
Cc: Smith, Claudia < Smith. Claudia@epa.gov >

Subject: RE: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance

**Test Results** 

Hi Cindy,

I do not have a table of that information.

#### Ex. 5 - Deliberative Process

Gerri

919-541-2406

From: Beeler, Cindy

Sent: Tuesday, February 16, 2016 3:54 PM

To: Garwood, Gerri < Garwood. Gerri@epa.gov >
Cc: Smith, Claudia < Smith. Claudia@epa.gov >

Subject: Table of DREs achieved in NSPS OOOO Combustor Manufacturer Performance Test

Results

Gerri -

# Ex. 5 - Deliberative Process

Thanks,

Cindy Beeler
US EPA Region 8, Energy Advisor
Office of the Regional Administrator
Tel: 303-312-6204
Beeler.Cindy@epa.gov

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